State of Food Security in the EU

A qualitative assessment of food supply and food security in the EU within the framework of the EFSCM

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In the framework of the Contingency plan for ensuring food supply and food security in times of crisis, the present qualitative assessment of the state of food security in the EU is produced twice a year. It is based on the inputs of different members of the expert group on the European Food Security Crisis preparedness and response mechanism (EFSCM). The Commission services compiled the replies received through an online survey. In addition to the results of the survey, the Commission prepared a targeted analysis of some data on food security available in its thematical dashboard.

The survey was open between July and September 2023 and submitted to members of the expert group on the EFSCM. Representatives of Member States and different stakeholders’ organisations along the EU food chain provided replies.

The EFSCM is a dedicated group of experts and a set of rules and procedures governing its activities, gathering Member States authorities, stakeholder organisations that play a role in the food supply chain, as well as certain non-EU countries with food supply chains that are highly integrated with the EU’s. The Commission convenes the EFSCM periodically to improve levels of preparedness to ensure continuous food supply and food security in the EU. The group may be convened in case of emergency or crisis without delay and as often as needed, to contribute to the response. The mechanism is triggered in case of exceptional, unpredictable and large-scale events or risks that have the potential to threaten EU food supply or security.

The contents of this publication do not necessarily reflect the position or opinion of individual members of the EFSCM or the European Commission.
1. State of food security in the EU

Growing concerns of recurring extreme weather events in the EU

The majority of respondents consider that negative weather events and climate-related disruptions of production cycles are the most alarming factors that threaten food supply. Across different actors, and food chain stages, there is a perception that such events affect the EU capacity to produce and to maintain the quality of food products. Besides, the perception prevails that these extreme weather events will become more frequent in the future.

Figure 1 Areas of concern based on observed extreme events

Lower EU production due to extreme weather events could increase the need for imports to ensure food supply and create pressure on length and cost of logistics

As a consequence of possible lower availability of domestically produced agri-food products, supply from imports might have to increase. This raises concerns about the extent to which the EU logistical infrastructure is able to manage this. For example, risks of higher congestion in ports, increasing freight costs due to higher import demand, and possible delays were quoted. On the consumer side, in some cases, there are views that more imports may result in consumer price increase which could add to the burden of consumers who are already suffering from high food inflation.

Price volatility and search for alternatives are potential constraints for food supply

Linked to the unpredictability of how the Russian invasion of Ukraine will continue unfolding, and how climate change across the globe will impact the supply of commodities, continued price volatility was mentioned as an important factor that negatively impact food supply. While alternative suppliers of the same products or alternative products might be easily found for some products (e.g. sunflower oil compensated by other vegetable oils), the scarcity of others, and the limited flexibility in changing sourcing could result in a risk a short-term shortage for producers and processors. If substitutes are to be used instead, potentially required additional investments to adjust processes, might not be immediately feasible.
Continued high input prices and production costs are drivers for changes in business structures

Input prices and production cost levels are considered to be an important factor of food supply. Producers and processors are affected differently by such costs, depending on their size and type of production. In this respect, small and medium-sized holdings are considered to face more challenges. Some respondents quote reports on curtailing and closure of activity due to high input prices. Moreover, the concentration process in which smaller entities are being taken over by bigger ones, is perceived to accelerate in this context.

Figure 2 Brent crude oil price (dollar/barel)

Source: DG Agriculture and Rural Development, based on US Energy Information Administration (EIA).

Food affordability is a key concern for food security

Food inflation was named as the main current driver for the level of food security. Respondents linked the prospects of lower domestic supply of certain food products and high level of input costs to the increasing pressure on EU agricultural prices. This fuels high levels of food prices in turn. The vulnerability of certain income groups of consumers to food price increases was highlighted, characterised by their inability to buy food and in particular healthy or more sustainable food.

Joint and co-ordinated actions at the core of food security

To support food security, the respondents point at the importance of joint and coordinated actions. Such actions comprise for instance co-ordinated facilitation of logistics. Isolated un-coordinated national interventions were often viewed negatively among stakeholders, sometimes exacerbating disruptions in the agri-food supply chain, and ultimately fuelling food inflation rather than alleviating it.

Most challenges likely to persist in the next 6 months

Looking ahead, most of the respondents expect current risks to persist, in particular the frequency of extreme weather events, and the unpredictability of how the Russian invasion of Ukraine will evolve. Concerning the latter, risks are not only linked to the availability of imports, but also to ongoing price volatility both for inputs and commodities and to potential logistical restrictions in place. Several respondents anticipate no decline in food inflation in the coming months, as input and production costs are expected to stay up, thus keeping consumer prices high due to delayed price transmission between different stages of the food chain.
2. Zooming into: EU Self-sufficiency

The high level of EU self-sufficiency rates across agricultural products derives from favourable natural conditions, diversity of territories and climate, and a competitive EU position relative to other global suppliers. This also reflects the results of successive CAP reforms over the years. As a result, the EU continues providing a sufficient and varied supply of safe, nutritious, quality, affordable and sustainable food to its own population and globally. The self-sufficiency rates presented below are calculated as the ratio between EU agricultural production and consumption in the EU.

High rates of self-sufficiency in animal products

EU self-sufficiency rates exceed 100% for most types of meats and dairy products. In some cases, this rate is far above the self-sufficiency rate. This surplus suggests a potential to export. Through exports, EU production, which is not consumed domestically (e.g. specific cuts of meats) can be valorised on international markets and create value for EU agri-food markets. By contrast, for the EU fishery and aquaculture sector, the self-sufficiency rates are fairly low (below 40%), leading to a stronger dependence on imports to satisfy domestic needs.

In terms of trends, the meat sector has shown a consistent upward trend in self-sufficiency since 2000, some reduction has been observed in recent years, linked to changes in production patterns across the EU in reaction to changing domestic and global demand (e.g. reduction of the pigmeat production and an increase of poultry meat). Conversely, dairy self-sufficiency has remained stable over the years, maintaining a consistently high level of production to meet domestic demand while providing a certain amount of products for international markets (especially milk powders). The seafood self-sufficiency rate is following a downward trend since 2014.

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Figure 4 EU self-sufficiency rates for selected animal products (average 2020-2022) and fish (average 2020-2021)

Varying self-sufficiency for arable crops

Arable crops showcase varying degrees of self-sufficiency, with soft wheat at 130%, and sugar at 93% based on 3-year average. However, protein crops and oilseeds lag behind, with self-sufficiency rates of 80% and 59%, respectively. Notably, the trend for protein crops has seen a slight decrease, falling from a peak of 101% in the 2016/2017 marketing year to around 80% in the latest figures for 2021/2022. Oilseeds, in general, rely heavily on imports due to historically low EU self-sufficiency rates, but there are disparities among them. Rapeseed and sunflower show relatively good self-sufficiency compared to the average, with EU sunflower production nearly meeting domestic needs at around 95% in 2021/2022. In contrast, soya bean remains a key driver for the sector’s low self-sufficiency, with a mere 16% in the 2021/2022 marketing year. Nevertheless, there’s a positive trajectory for soya bean self-sufficiency, more than doubling over the past decade starting from 7% in 2002/2003.

Figure 5 EU self-sufficiency rates for selected plant products (average 2020-2022)

Slight differences in self-sufficiency between processed and fresh fruit and vegetables

For fruit and vegetables, specifically fresh apples, oranges, peaches and nectarines, and tomatoes, the EU has a good level of self-sufficiency. For fresh consumption, EU production of these products predominantly satisfies domestic needs (unless some exceptionally bad harvest occurs as a result of adverse weather conditions). Over a 3-year average, production of fresh tomatoes meets 96% of domestic demand, oranges meet 93%, apples and peaches and nectarines even surpass it at 113% and 104% respectively. However, when it comes to processed products of selected fruit and vegetables, disparities emerge. Tomatoes, apples, oranges, and peaches and nectarines production levels exceed domestic needs at 122%, 107%, and 139% respectively on average over a 3-year period. Conversely, processed oranges exhibit a lower self-sufficiency rate at 35%. Remarkably, there has been little fluctuation in these trends in recent years for tomatoes and apples, which helped EU explore export opportunities while effectively meeting domestic demand.

Figure 6 EU self-sufficiency rates for selected fruit and vegetables (average 2020-2022)